

In the Matter of )  
 )  
Inquiry Regarding Carrier ) ET Docket No. 03-104  
Current Systems, including )  
Power Line Broadband Systems )  
 )

REPLY COMMENTS of Richard L. Green  
WC1M Amateur Radio Operator to the Comments Submitted by  
Cynergy Corp.

My comments are in response to the comments in this docket  
filed by Cynergy Corp. (Cynergy).

In its conclusion, Cynergy says:

Cinergy respectfully requests that the Commission refrain from regulating the nascent BPL industry in ways that might threaten its early survival. Cinergy strongly supports the Commission's longstanding conclusions that market forces best



promote the development and deployment of broadband technologies.

Similarly, market forces can best resolve technical issues.

As a high-technology executive for many years, I agree with the Commission's conclusion that market forces best promote the development and deployment of broadband technologies. However, Cynergy makes an unwarranted and unsubstantiated leap when it further concludes that market forces can best resolve technical issues.

There is absolutely no historical evidence that market forces can resolve spectrum interference issues, and the Commission has plenty of evidence to the contrary. There are countless cases in which FCC regulation and enforcement have been required to prevent one service from interfering with another. For example, faulty cable and power line installations often interfere with radio and TV reception. There are no market forces that compel the owners of these installations to repair their equipment. In fact, just the opposite is true: avoiding the cost of repair helps the owners to compete in the marketplace. Typically, the FCC must step in and enforce non-interference regulations in order to resolve these situations.



## **BPL Causes Interference to Amateur Radio and Other Services**

In its conclusion, Cynergy goes on to say:

At this very early stage in the BPL technology life cycle, it would be premature for the Commission to freeze particular solutions in place through regulation - indeed, at this time, it is impossible even to know what problems, if any, may arise that might necessitate regulatory intervention.

Cynergy's plea has two serious errors:

First, the Commission need not impose any further regulations to require that BPL not interfere with other services. Those regulations already exist and form the basis for one of the Commission's most important and time-honored duties, as required by Congress: avoiding chaos in the radio spectrum by preventing spectrum interference. Cynergy is actually pleading that the Commission look the other way, ignore interference, and not enforce its own regulations.

Second, Cynergy is incorrect that it is impossible to know what problems may arise. I call the Commission's attention to a video showing BPL interference tests conducted by the



Amateur Radio Relay League (ARRL) in BPL test communities in Maryland, Virginia, Pennsylvania, and New York. The video may be found on the ARRL website at [http://216.167.96.120/BPL\\_Trial-web.mpg](http://216.167.96.120/BPL_Trial-web.mpg). The tests clearly show massive interference to broad sections of the HF spectrum, with signal levels from moderate to severe.

It does not take a great deal of technical knowledge to conclude that BPL will cause interference: the power grid is a massive antenna system that lacks shielding to prevent radiation of radio energy carried on the lines. At relatively modest signal strength, BPL in the HF spectrum can and will radiate sufficiently to cause interference both locally and over great distances via ionospheric propagation.

## **Conclusion**

It is clear that BPL will cause devastating interference to a broad range of HF spectrum users, including Amateur Radio, international shortwave broadcasts, radio astronomy, military communications, long-range aircraft communications and possibly over-the-air television broadcasts near the HF spectrum. In view of the clear intent of Congress when the Commission was formed, the Commission cannot and should not permit such interference.



### **Recommended Actions**

The Commission should require that BPL interference not occur to any existing radio service, in particular the Amateur Radio service, the international short-wave broadcasting service, radio astronomy service, military service and long-range aircraft service. In addition, the Commission should ban BPL emissions in the frequency bands allocated to these services. I call the Commission's attention to the fact that there is ample precedent for this action: BPL has been banned in Germany and Japan due to excessive HF interference.

**Respectfully submitted,**

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